



VBI70 Biomonitoring Group
Minutes
October 25, 1999
3:00 p.m. to 5:30 p.m. (EST)

Participants: Dave Hewitt, David Mellard, Jane Mitchell, Bonnie Lavelle, Ted Fellman, Michael Maes, Anthony Thomas, Lorraine Granado, Celia VanderLoop, Chuck Patterson, Joyce Tsuji, and others

I. Rationale for selected arsenic biomonitoring method(s).

- A. The investigation will collect urine samples from participants and measure for arsenic.
- B. The investigation will measure inorganic arsenic, DMA, and MMA separately. The total arsenic value for these species also will be reported.
- C. Participants will be asked to avoid eating seafood, organ meats, and rice for 5 days prior to collection of urine sample.
- D. EPA offered to collect indoor dust samples from the homes of participants.
- E. No decisions were made about collecting hair samples to measure for arsenic
- F. Jane Mitchell will put together journal articles for the pro's and con's of collecting hair samples.
- G. Dave Hewitt will take a look at ATSDR's biomonitoring investigation and health studies where urine arsenic and hair samples were collected to determine the feasibility of collecting hair samples and to see how the data were used.
- H. The investigation will consider sending some urine samples to a second laboratory to measure the accuracy of the laboratory selected to analyze all the urine samples.
- I. The group reviewed the goal of the biomonitoring investigation and agreed that the goal is to determine if excess exposure to arsenic is occurring in a limited sample of individuals with the highest potential for arsenic exposure. Results of the investigation can then be used to determine appropriate follow-up actions.

II. Selection of target population

- A. The investigation will collect biological samples from approximately 100 people.
- B. The investigation will focus on children, particularly pre-school children because they have the greatest potential for exposure. The investigation will try to enroll:
 - ✓ 50 preschool children who live on arsenic-contaminated soil
 - ✓ 20 adults who live on arsenic-contaminated soil
 - ✓ 10 gardeners who garden in arsenic-contaminated soil
 - ✓ 10 preschool children who do not live in a property selected for participation but who play frequently in a yard selected.
 - ✓ 10 preschool children whose yards have large sections of bare soil and whose soil is contaminated with arsenic.

- C. The focus for selecting participants will be for those people who live in the more highly contaminated properties.
- D. The numbers mentioned in B are a guide and can be changed based on future information.
- E. The investigation will use EPA's phase III data to select participants.
- F. The investigation will need to conduct education about the biomonitoring activity to explain that it is not medical monitoring. Education is also needed to explain that the investigation is an activity that will give us information about exposure but not about potential harmful effects.
- G. EPA requested that ATSDR consider offering biological testing to participants of all properties that EPA selects for removal actions. If ATSDR can't do this, EPA will consider offering biological tests through EPA's program.
- H. EPA will look at collecting soil samples from the trailer park near 52nd Street that's outside the study area boundary. The reason is because the trailer park has a lot of bare soil and many children live and play there.

III. Time line of investigation

- A. Phase III data are expected by January 2000.
- B. The investigation is tentatively planned for April or May to coincide with increased outdoor activity.
- C. The investigation will coordinate with EPA's removal actions at selected properties so that participants who live at removal properties are considered by for participation. At this time, no decision has been made to automatically offer tests.

IV. Roles of community and health agencies

- A. The investigation needs to discuss confidentiality issues as it relates to the participation of community representatives.
- B. EPA will consider gathering information about percent of bare soil as well as the number and age of children as they conduct phase III samples.
- C. Jane Mitchell will ask Terry Taylor with CDPHE to talk to the biomonitoring group about the EPA funded blood lead program for North Denver. This is a new program and it may be possible that the program will collect blood lead samples from children in the VBI70 study area.